ISTEP+ Spring 2009 Indiana Statewide Testing for Educational Progress Plus

Mathematics • English/Language Arts • Science Grade 4



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Use only a Number 2 pencil to respond to the questions in this book. Responses written in pen CANNOT be scored.



If you see this symbol, use your ruler as a straightedge or to solve the problem.

Acknowledgments: CTB is indebted to the following for permission to use material in this book.

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Photograph of Red Fox Jumping in Snow (Image No. CAI-04CJ051-001), copyright © by John Conrad/Corbis. Used by permission.

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NOTE: A correct answer **CANNOT** receive full credit if no work is shown.

Since you may receive partial credit for all problems in this test, it is important to show ALL work in the spaces provided in this book. When you see the words **Show All Work**, be sure to

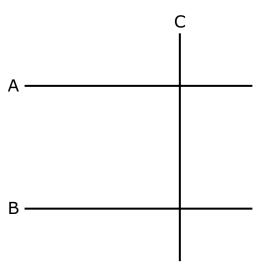
- show all the steps needed to solve the problem
- make your handwriting clear and easy to read
- write the answer on the answer line

As you complete each problem, remember to

- **P READ** the problem carefully
- **PLAN** how to solve the problem
- **☑ SOLVE** the problem showing all steps
- **E** CHECK your work

Session 1: Mathematics

1 The lines below represent 3 streets in Javier's neighborhood.



Main Street is perpendicular to First Avenue.

Pike Street is parallel to Main Street.

Use the information above to label each street in Javier's neighborhood.

A _____

В _____

C _____

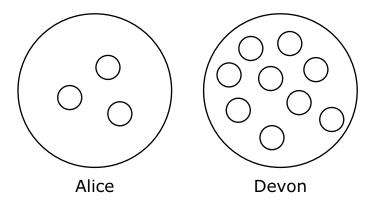
Use words, numbers, or symbols to justify the labels for each of the streets in Javier's neighborhood.



Go On



At a restaurant, Alice ordered a 3-piece chicken nugget meal and her brother Devon ordered a 9-piece chicken nugget meal. Both of them gave $\frac{1}{3}$ of their chicken nuggets to their mom. The diagram below shows the number of chicken nuggets in both meals.



How many chicken nuggets did their mom receive?

Answer _____ chicken nuggets

What fraction of chicken nuggets did Devon have LEFT?

Show All Work

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Answer

8 feet Lawn 28 feet

Michael can mow an area of 56 square feet in 5 minutes.

How long, in minutes, will it take Michael to mow the front lawn?

Area of rectangle = lw= length \times width

Show All Work

Answer _____ minutes





STOP! ____ STOP! ___ STOP! ___ STOP! ___ STOP! Page 6

Mathematics

Use only a Number 2 pencil to respond to the questions in this book. Responses written in pen CANNOT be scored.



Whenever you see this picture, you will be doing a writing activity. Your writing will be scored on how clearly you write and how well you get your ideas across. Your writing will not be scored on your personal opinions. Be sure to check your writing for correct grammar, spelling, punctuation, and capitalization.

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Session 1: English/Language Arts

1 A Special Talent or Skill

Read the writing prompt below and complete the writing activity.

Everyone has special talents and skills. Your talent or skill might be something that you learned in school, at home, or on your own.

Write an essay about your special talent or skill. Tell how you got this talent or skill and why the talent or skill is important to you.

Be sure to include

- a description of your special talent or skill
- how you got your talent or skill
- why your talent or skill is important to you
- specific details to make your writing interesting
- a beginning, a middle, and an end to your writing



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Use the Prewriting/Planning space or additional paper for notes, lists, webs, outlines, or anything else that might help you plan your writing. Then write your essay on the lined pages. Be sure to write neatly. Using the Editing Checklist on page 14, check your writing for correct grammar, spelling, punctuation, and capitalization.

Prewriting/Planning

NOTE: Only your writing on the lined pages in this book will be scored.

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Essay

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Now check your writing using this Editing Checklist.

Editing Checklist

- Have you started each sentence with a capital letter?
- Have you capitalized names of people and places?
- Have you used correct punctuation?
- Have you spelled all words correctly?
- Does the action word (verb) of your sentence agree with the subject?

Examples: Tom plays at the park.

They play at the park.

6 Have you used the correct form of your action words (verbs)?

Examples: Jan plays today.

Jan played yesterday.

Jan will play tomorrow.

Have you written complete sentences?



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English/Language Arts

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Session 2: English/Language Arts

For Session 2, you will read an article called "The Red Fox" and complete Numbers 1 through 3. You may look back at the article as often as you like.

Go On

The Red Fox

by Warner Shedd

It's always easy to think wild animals are bigger than they really are, and that's especially true of foxes. Most people seem to think that a fox weighs about as much as a medium-small dog, but it really only weighs about as much as a house cat. Do you or your neighbors have a cat? If so, how much does it weigh?

An average red fox weighs about ten pounds. If a fox weighs so little, why does it appear to be so much bigger? It's because of its long legs, thick fur, and beautiful tail, which is called a *brush*. That handsome brush, which looks so big and full, actually weighs almost nothing and just seems to float along behind the fox. Underneath all that fur, the fox has a very skinny body, and that's one reason it can run so fast!

The wolf and the red fox both belong to the dog family, but they're very different in many ways, such as the way they hunt. The fox, as you will see, actually has a lot of catlike qualities.

What's for Dinner?

Foxes eat many things, including birds' eggs, berries, nuts, and a lot of meat. They catch prey as large as rabbits and hares or as small as insects. However, foxes are especially good at catching mice, voles, and other small rodents, and each fox hunts alone—much more like a cat than like wolves and other members of the dog family.

1voles: rat-like animals



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Session 2

Have you ever seen a cat stalk a mouse and pounce on it? If you have, have you seen the cat play with the mouse before killing and eating it? Well, foxes hunt in almost the same way.

Stalk and pounce: The fox sneaks along until it hears the rustle of a mouse or vole in the grass. Then it turns its head from side to side, using its wonderful ears to figure out the exact location of its prey. The fox will *stalk* its prey and then *pounce* on it. You can find the word *stalk* in the dictionary and discover that it has several meanings. One meaning is to *walk softly*. Try stalking as if you were a hunting fox; then, *pounce*! How is pouncing different than jumping? What part of your body helps you pounce? The fox leaps high in the air and comes almost straight down, its front legs extended to pin the mouse beneath its front feet. Where do you think the fox must have strong muscles?





Fox and Mouse Game

A fox is able to hear the rustle of a mouse or a vole in the grass. That's wonderful hearing! The fox turns from side to side to determine the exact location of its prey. How well do your ears work at helping you locate sounds? You can play a game of **Fox and Mouse** to test your hearing. This game can be played with four or more friends—the more players, the more difficult.

Choose one person to be the "fox." The other players are mice; they form a circle around the "fox" who stands in the center with eyes closed. One "mouse" enters the circle, walks around the fox, and returns to the same spot in the circle. All the children call out, "Foxy, foxy, where am I?" The "fox" must point to the child who was the "mouse." If "fox" guesses correctly, then the "mouse" and "fox" trade places, and the game continues with a new "fox."

Now that you've tried listening like a fox, what did you discover about using your ears? Did you turn your head as a fox does? How did you determine the location of the "mouse"?

| 1 | What does the author mean when he says that the red fox "has a lot of catlike qualities"? Support your answer with details from the article. |
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| 2 | Explain why the red fox is a good hunter. Support your answer with details from the article. |
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NOTE: For Spring 2009, Grade 4, Question 3 did not contribute to the calculation of a student's score. Therefore, this item is not included here.



Session 1: Science

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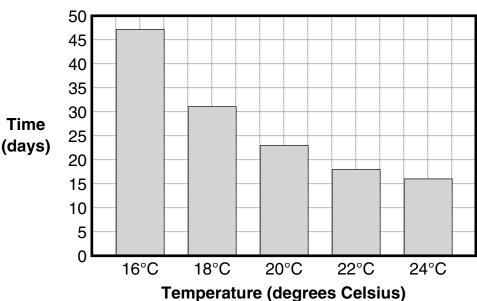
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The graph below shows how temperature affects the amount of time it takes for a mosquito to grow from a larva to an adult.

Session 1

Amount of Time for a Mosquito to Grow from Larva to Adult



According to the graph, at what temperature does it take a mosquito about 23 days to grow from a larva to an adult?

Answer _____ degrees Celsius

According to the graph, at 21°C about how many days would it take a mosquito to grow from a larva to an adult?

Answer _____ days

Using the information in the graph, describe how temperature affects the amount of time it takes for a mosquito to grow from a larva to an adult.

Go On

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2 Julia and Lucas tested three different brands of batteries to find out which brand would last the longest when used in a portable CD player. The table below shows their results.

Comparing Brands of Batteries

| Brand | Price | CD Player Turned On | CD Player Stopped | Amount of Time Batteries Lasted |
|-------|--------|------------------------|-------------------------|------------------------------------|
| Α | \$5.00 | Monday 9:00 A.M. | Tuesday 8:04 A.M. | 23 hours, 4 minutes |
| В | \$4.25 | Tuesday 9:00 A.M. | Tuesday 6:10 P.M. | 9 hours, 10 minutes |
| С | \$3.50 | Wednesday 9:00 A.M. | Wednesday 11:27 P.M. | 14 hours, 27 minutes |

Describe how the amount of time Brand A lasted compares to the amount of time Brand B lasted.

Describe how the amount of time Brand B lasted compares to the amount of time Brand C lasted.



Go On

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Give TWO different reasons that could explain why their measurements were very different from each other.

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Applied Skills Assessment

Mathematics • English/Language Arts • Science **Grade 4**

